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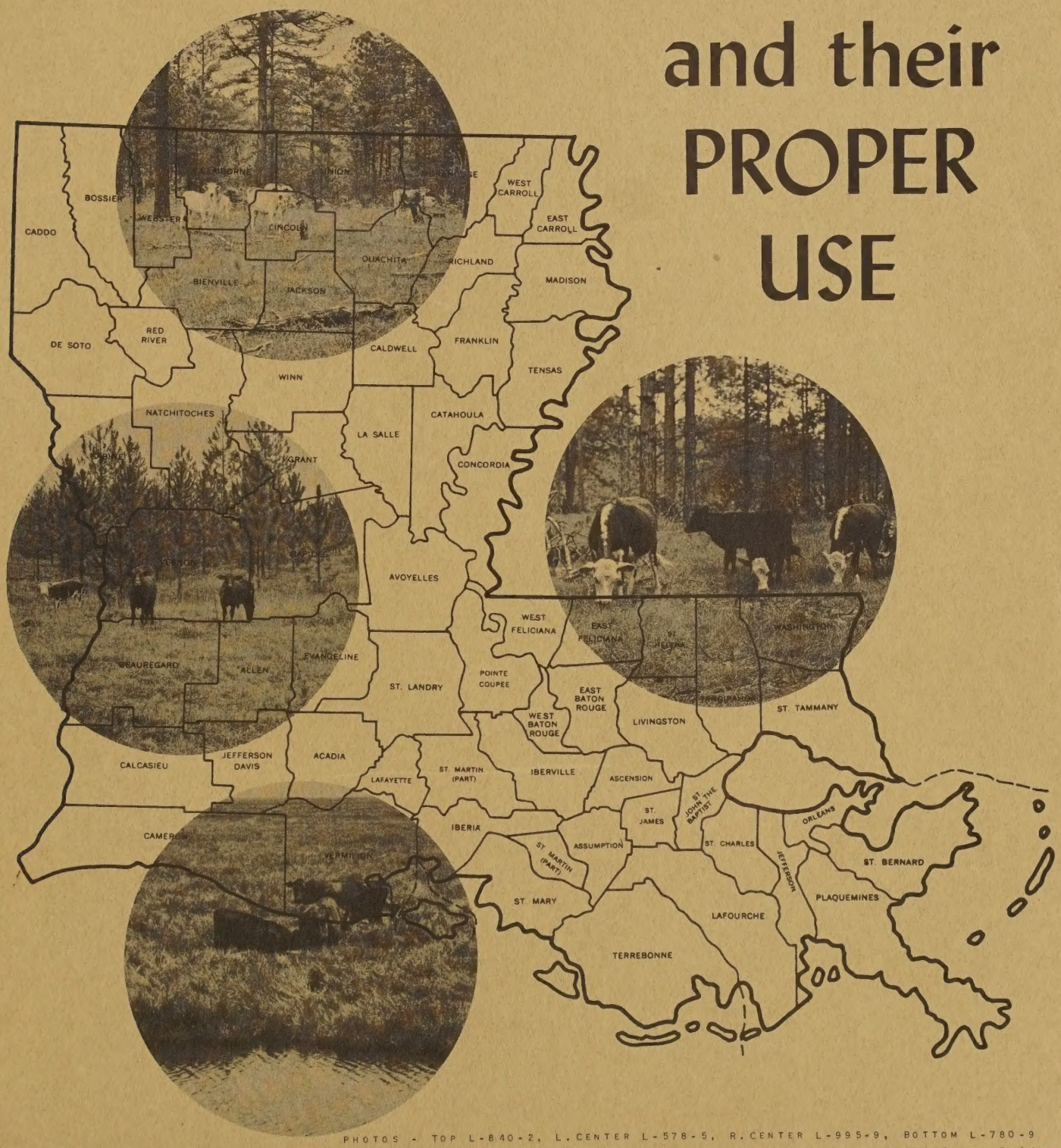
LOUISIANA'S RANGE RESOURCES and their PROPER USE



PHOTOS - TOP L-840-2, L. CENTER L-578-5, R. CENTER L-995-9, BOTTOM L-780-9

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INTRODUCTION

Rangelands are usually defined as natural or native grasslands. Native forage is Louisiana's most extensive and one of her most important forage resources. About 1½ million acres of South Louisiana's 4½ million acres of marshlands are true rangelands and produce an abundance of high quality forage. The other major area is the 7½ million acres of grazeable woodlands, mostly pine, that produce a forage crop in addition to the major crop of timber. Grazing is not recommended on areas where hardwood reproduction is desired.

Several thousand acres of prairie land are also used as rangeland. These resources are definitely of sufficient scope to warrant wise use to conserve soil, water and plants and to perpetuate the forage crop. Through Louisiana's Soil Conservation Districts, the Soil Conservation Service assists land owners and operators to properly use and maintain these important resources.

CLASSIFYING AND PLANNING THE RANGE RESOURCE

Fundamental to the wise use of native forage is a conservation plan. This plan is developed by the landowner or operator with the assistance of SCS personnel assisting the local soil conservation district. These decisions are based upon a range site and condition survey.

For planning purposes, rangelands are classified by site (kind of soil) and condition class (kind of vegetation). Sites vary because they grow a different kind or amount of climax vegetation.

The determination of these items is called a range survey or forage inventory which becomes the basis for a conservation plan. Adjustments in livestock numbers and other needed conservation practices are included in the plan.

L-1043-1

Company forester and SCS technician recording planning decisions for a grazing and timber plan on a natural longleaf pine tract.

L-974-11

Rancher and SCS technician developing a complete conservation plan for a marsh grazing unit.

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L-974-2

Condition class refers to the kinds of plants present compared to what the site is capable of producing. The grassland is classified as excellent, good, fair or poor. A range in excellent condition produces the most forage and generally supports the most livestock per acre.

A salt marsh range in EXCELLENT condition.

L-754-3

On grazeable woodlands another item is added to the forage inventory - canopy coverage. The amount of shade from trees and shrubs has a direct effect on forage production. It is classified as open, sparse, medium and dense. Production is highest under open canopy and least under dense.

An EXCELLENT condition grazeable woodland with sparse canopy coverage.

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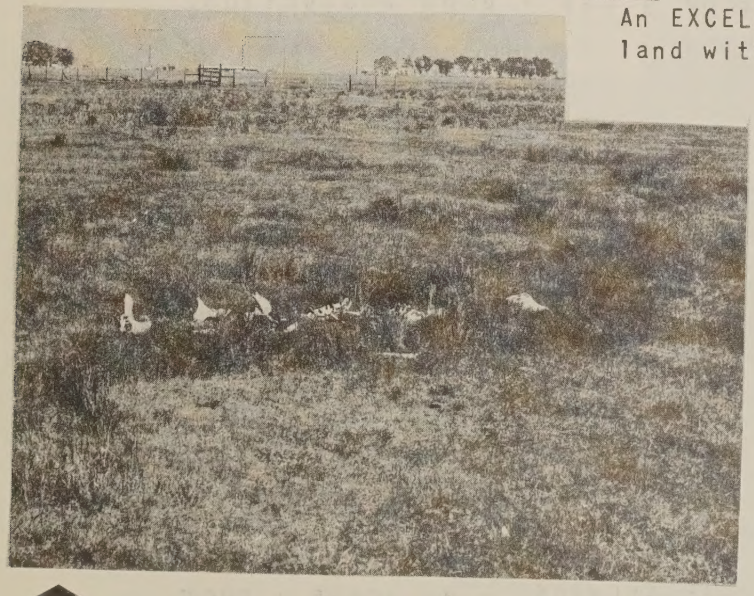

A range in POOR condition.

Over-grazing and other abuse eliminates the tall, highly productive grasses. Forage plants become low in vigor and much ground is exposed. Soil and water resources are misused and livestock production is low. Conservation plans are developed to improve such conditions.

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Proper Use

Marsh rangelands provide an abundance of high quality native forage.

Proper grazing is the key to successful management. Proper grazing is normally achieved when no more than one-half the annual growth of the important forage plants is grazed off (upper photo).

Proper use keeps forage plants vigorous and productive and provides cover and litter to conserve soil and water. Livestock production and net returns are highest from properly grazed ranges (center photo).

Overgrazing destroys the better forage grasses and permits deterioration of the resource. Livestock production is very low on severely over-used ranges (bottom photo).

As over-use continues, the better, more palatable forage plants are eventually killed out. They are replaced by plants of poorer quality and usually lower in productivity. If abusive grazing is practiced over a long period of time, brush and weeds may completely take over the range.

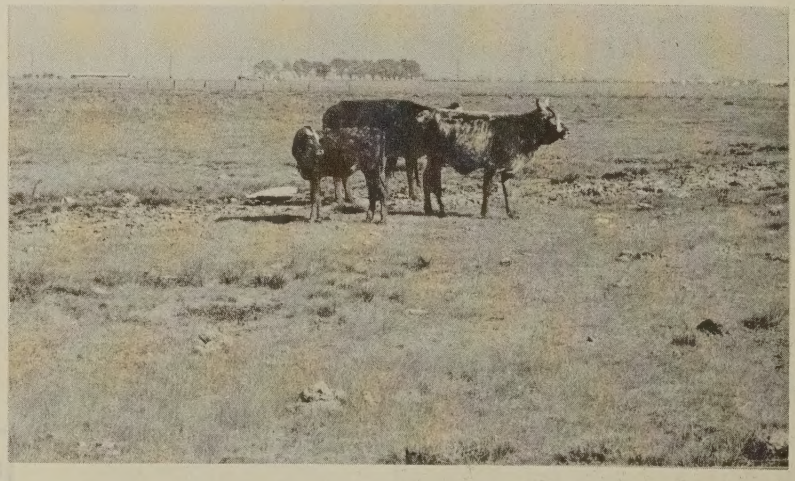
L-819-9

A PROPERLY GRAZED PLANT - About one-half the annual growth has been grazed.

L-565-10

A PROPERLY GRAZED SALT MARSH RANGE - Good grass - good production.

L-710-9



SEVERE OVER-USE - No grass - poor cattle - low production.

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Cross-Fencing and Deferred Grazing

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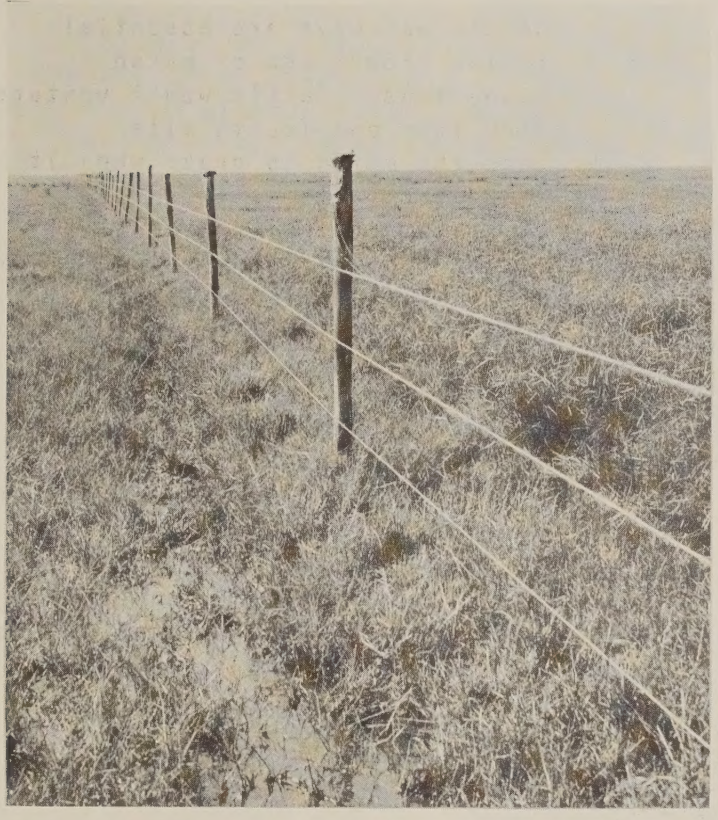

Deferred grazing permits over-grazed or burned-over ranges to recover and regain productivity. It is very important to rest salt marsh ranges in the summer following burning and close grazing in the winter months. Fencing makes possible a more efficient use of the forage produced.

The cross-fence shown here permitted the rancher to divide his range into summer and winter pastures. The unit to the left was grazed in the summer while the one on the right was deferred for winter use.

Controlled Burning

L-827-10

Controlled burning removes the excess rough and provides lush, palatable forage for cattle. This practice is used primarily on salt marsh rangelands. Burning should be done from late summer to February. There should be an inch of water above the soil surface at the time of burning to protect the roots and crowns of grass. Winds should be steady, 10-15 mph. Do not burn the same areas more often than every other year. This practice is also beneficial to certain marsh wildlife species.

There will be lush grazing in the spring after winter burning. Then the area will be deferred in the summer to permit recovery.

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Cattle Walkways

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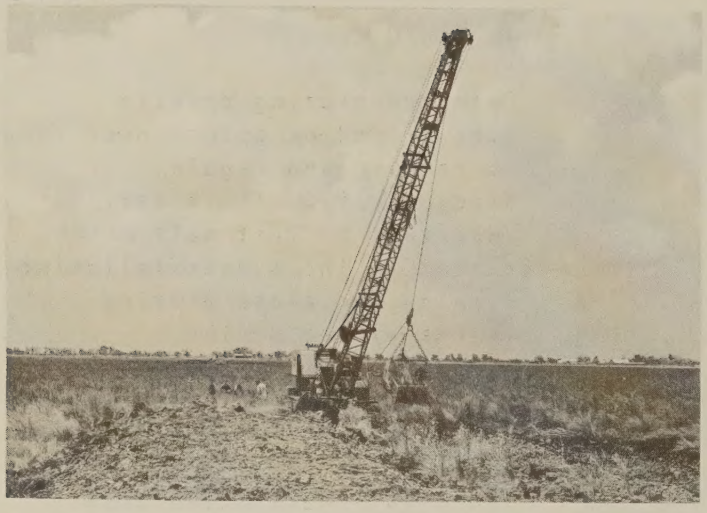

Walkway Construction

L-950-9

Cattle Bedding and Resting

Cattle walkways are essential to the proper use of marsh rangelands. Cattle won't venture more than one-fourth mile into the marsh to graze when it is covered with water. Walkways resembling built-up roads, connect cheniers and other ridges within the marsh and help to distribute grazing. In addition to more uniform grazing of the grass these structures provide bedding, calving and feeding areas for cattle. Livestock handling is made easier. Some relief from high water and insects is afforded by the walkways. Also, they allow ranchers access to marsh areas for management and use by sportsmen.

Walkways are normally built with a top width of 10-12 feet and a settled height of two feet above normal water level. Borrow pits are staggered from side to side. This permits cattle to get off from either side to graze and also prevents the creation of a continuous channel that might permit drainage or salt water intrusion.

L-726-7

Grazing Distribution

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Bridges or culverts are placed in bayous or other natural drainageways so that the flow of water will not be interrupted.

Many marsh ranchers require oil companies to build well-location roads to cattle walkway specifications. If the well is completed or abandoned, the road continues to serve as a walkway.

This range conservation practice originated in Cameron Parish, Louisiana in 1950. Since that time several hundred miles have been built in several coastal states and in foreign countries.

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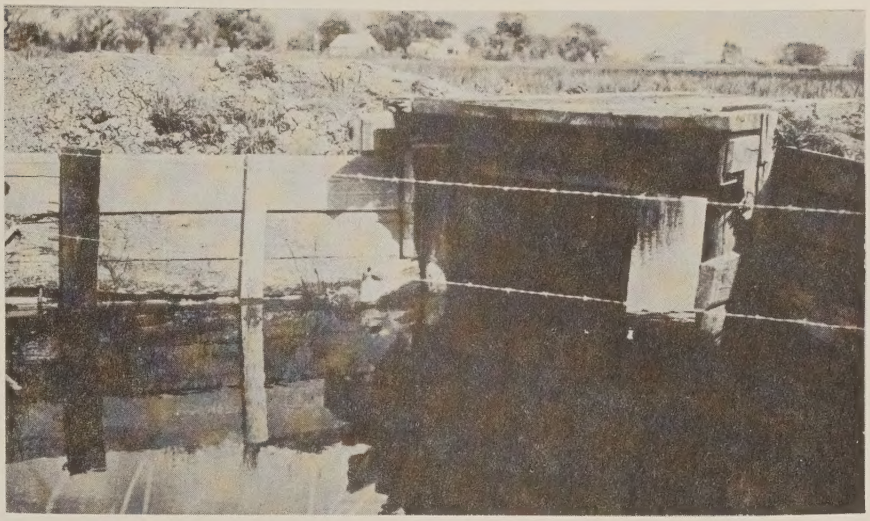
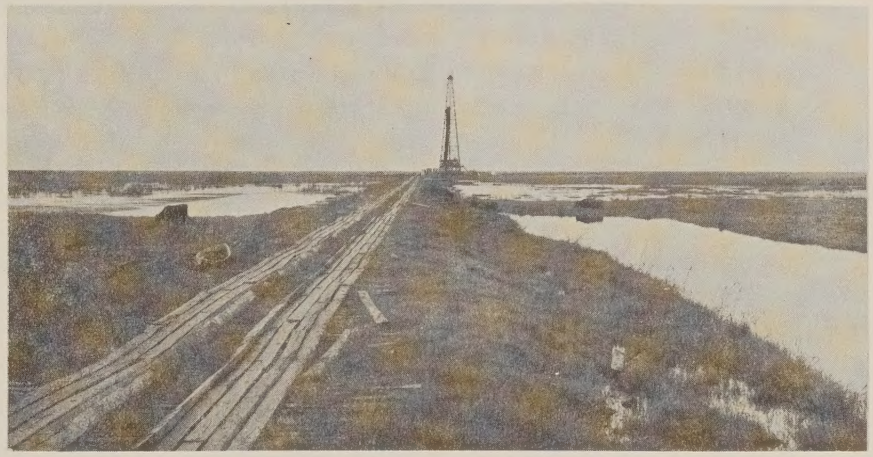


BRIDGE across a bayou

L-1200-4



OIL WELL ROAD - Used also as a cattle walkway

L-990-9

WALKWAY NEEDED - The ridge is severely overgrazed while the marsh in the background is undergrazed.

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Other Practices for Marsh Rangelands

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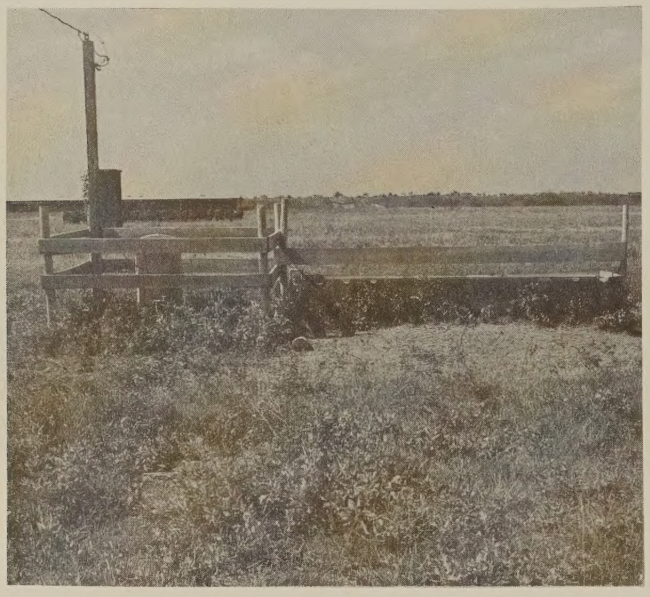

WATER DEVELOPMENTS like the well shown here are important, especially on salt marsh ranges where water often gets too salty for cattle to drink. Water facilities such as this, or ponds located on ridges, also aid in grazing distribution.

L-530-8

CONTROL OF NOXIOUS BRUSH may be necessary where it has invaded. The rattlebox shown here has destroyed almost all of the grass. It can be controlled by aerial spraying. Other species may require different measures.

L-974-10

EARTHEN WINDBREAKS protect cattle from cold winds and rains during winter months and aid in grazing distribution. This 150-foot-long structure will provide protection for 100 head. Pits provide drinking water for cattle.

L-701-3

GOOD QUALITY CATTLE along with good livestock management practices are important if the full benefits of a conservation program are to be realized. To produce more beef with the same amount of grass is plant conservation.

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Proper Grazing of Woodland

Proper grazing of woodlands is important both to the grass and to the tree crop. It is normally achieved when no more than one-half the annual growth of the better grasses is grazed off (top photo). This keeps the better plants healthy and productive and provides cover for soil protection. Sustained livestock production is highest when proper grazing is being practiced.

Proper grazing is beneficial to timber production. Grazing reduces fire hazard by removing a part of the fuel. Grazing also helps suppress undergrowth and undesirable species. Natural regeneration of pine is improved by proper grazing. Use of woodlands for livestock production provides income while waiting for the tree crop to reach merchantable age.

Overgrazing destroys both the forage and the tree crops (bottom photo). Livestock suffer from lack of feed and forage production is low. The sparse ground cover resulting from over-use permits erosion and excessive water loss. Weeds and undesirable woody plants often invade with overgrazing.

L-902-1

A PROPERLY GRAZED PLANT -- One-half of the current growth has been Left.

L-1043-11

A PROPERLY GRAZED UNIT regenerated to longleaf pine.

L-710-2

OVERGRAZING destroys both desirable grass and trees.

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L-1039-12

A CROSS-FENCE for better grassland management.

L-775-5

A FARM POND aids in grazing distribution.

L-1043-3

ROADS help to achieve uniform grazing.

Distribution of Grazing

An important item in managing grazeable woodlands is to achieve uniform grazing distribution where grazing units are large. Some areas may be overgrazed while other areas are undergrazed and forage wasted.

Fencing is necessary before a large range can be properly used. With cross-fences cattleman can rotate livestock from one unit to another to assure a more even use.

The most popular practice used to distribute grazing is farm ponds. Properly located, one pond can achieve uniform grazing over a large area. They should be located away from bedding grounds, headquarters, feeding grounds and other areas where livestock normally concentrate. As a rule they should be placed in the north part of the grazing unit if a suitable site is available. They also provide recreational activities such as fishing and boating.

Other measures that help to provide grazing distribution are fertilized and seeded firebreaks, proper placement of salt and supplemental feed locations and roads. Feed locations should be placed away from water and moved periodically into under-used areas.

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Improved Firebreaks

Firebreaks, improved by seeding and fertilizing, are important to livestock management on grazeable woodlands. Livestock tend to graze them closely because of the higher quality forage. This creates a barrier to fire. At the same time land usually wasted is producing a crop. The grass sod prevents erosion on sloping land --often a problem on disked firebreaks.

L-510-5

One successful fertilization program has been the initial application of 1,000 pounds of basic slag per acre, plus 150-200 pounds of superphosphate as needed -- usually every three to four years.

At left a band of sheep graze an improved firebreak in a slash pine plantation.

L-991-2

Bahiagrass and common lespedeza are normally seeded, but carpetgrass or Bermudagrass may also be used. Photo at right shows a bahiagrass firebreak in a large tract of grazed woodland.

L-769-5

Several hundred miles of this type of firebreak are in use in Louisiana. Erosion becomes a problem where disked firebreaks cross slopes and are not seeded and fertilized. No grazing is produced here.

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SUPPLEMENTAL FEEDING AND LIVESTOCK MANAGEMENT

Forage produced on woodland is fairly low in quality. Protein content is such that livestock gain weight for about four months starting in early spring, maintain weight for a like period in summer and fall, and lose condition rapidly in winter if range forage is not supplemented. Some minerals, particularly phosphorous, are below livestock requirements at all seasons.

Excellent research on this problem has been conducted by the Southern Forest Experiment Station at their Palustris Experimental Forest near Glenmora, Louisiana. Results of their studies show supplemental feeding to be highly profitable. They recommend that salt and mineral supplement be fed free-choice throughout the year and protein supplement fed from about November 1 through mid-April or May. Each grown cow should receive about 375 pounds of cottonseed cake or its equivalent during this period.

L-551-6

A cow shown leaving a supplemental feed location. The covered trough contains salt and mineral supplement in separate compartments. The open trough behind is used to feed protein supplement during the late fall and winter months when protein content of forage is low.

L-1048-8

The end product of good forage and livestock management. The fat calf shown is one of many produced by the cattle shown in the background. Note that cows are of a fairly good Brahman type. A registered Hereford bull was used.

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TYPES OF GRAZEABLE WOODLANDS

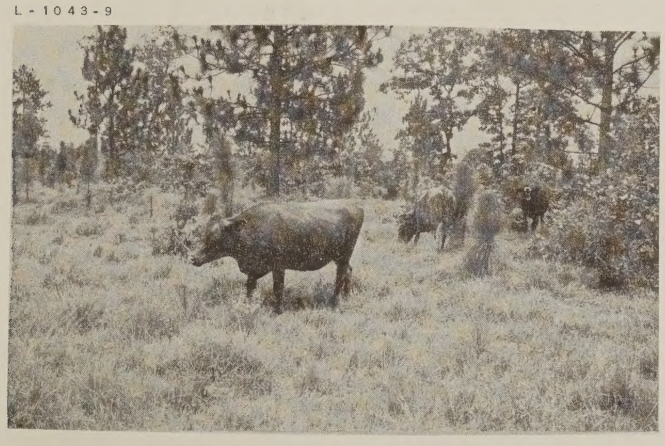
L-1039-5

Natural Longleaf Pine -- This woodland type produces the most forage (except for cut-over land). It occurs primarily in southwest Louisiana and in the southeast part of the State. Scattered areas occur in north Louisiana. There are more than a million acres of this type.

L-990-12

Slash Pine Plantation -- Much of the cut-over forest lands have been planted to pine. Forage production is high initially, then reaches a low prior to the first thinning. Afterward a moderate level is maintained. There are about a million acres of this type.

L-1043-9



Direct Seeded Longleaf Pine -- Many landowners are going back to longleaf pine and establishing it by direct seeding. After seedlings get out of the grass, these areas make excellent ranges. Forage production will decline as the timber canopy increases, but will remain fairly high. There are an estimated 75,000 acres of this type.

L-840-3

Loblolly Pine -- Shortleaf Pine -- This area comprises the largest acreage in the State. There are about four million acres in north and southeast Louisiana. Forage production per acre is the lowest of any type. However, there is sufficient forage and browse produced on most of it to make grazing worthwhile, and the grazing helps control hardwood sprouts.

Not pictured is the mixed pine-hardwood type which covers approximately one and one-half million acres in the State.

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PRAIRIE RANGELANDS

About 100,000 acres of coast prairie lands are used and managed as rangeland in Louisiana. Most of it is in the southwest part of the State. Some prairie soil occurs in isolated areas throughout the Forested Coastal Plain. Much of it is used in conjunction with marsh pasture and idle rice land grazing. Much of it has been abused. Brush, particularly McCartney Rose, has invaded where it has been severely overgrazed. Despite its history, the prairie ranges will respond rapidly to conservation treatment, resulting in more forage production and better conservation of soil, water and plant resources.

L-410-2

BEFORE

L-1101-5

AFTER

A CONTRAST - The range on the left has been severely overgrazed for many years. The more productive tall grasses have been eliminated and McCartney Rose (Cherokee) has invaded. Remnants of the better grasses can be found in the rose bushes. The picture on the right shows how several years of good management can improve the range condition. Rose was controlled by dozing, mowing and spraying with 2,4-D. The tall, better grasses have become reestablished and are helping to keep the rose regrowth suppressed. Additional spraying is needed occasionally to maintain the control.

L-955-6

An excellent condition class prairie site. It is normally rested from grazing during the summer and grazed moderately from late fall to early spring. The most productive and nutritious tall grasses are abundant, including big bluestem, Indiangrass, switchgrass and little bluestem. Forage production is approximately 7,000 pounds, air-dry per acre. Livestock production is high and resources are well conserved.

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SEASONAL USE OF RANGE RESOURCES

Each type of Louisiana's range resources has an optimum season of use. Salt marshes are best for winter grazing. Mosquitoes and other insects make summer use very hazardous. Fresh water marshes are best from late winter to mid-summer. Sometimes mosquitoes are a problem on these ranges too.

Grazeable woodland and prairies are best from early spring until frost. After frost, protein content becomes very low. They can be grazed yearlong if adequate protein supplement is fed.

Many ranchers find a combination use of the different range resources to best fit the livestock production needs. Several thousand head of cattle are trailed or trucked long distances each year between different grazing areas.

L-780-3

When mosquitoes hit, all livestock, like these horses, bunch up to protect themselves. They stop grazing and young animals are abandoned to starve or be killed by mosquitoes. Livestock should be moved out of the salt marsh during the season.

L-853-12

Every year this herd of cattle swim the Calcasieu River twice moving between winter and summer range. During the winter they graze salt marsh and use fresh marsh, tame pasture, and rice field forage during the summer season. Approximately 1500 head of cattle are included in the drive.

L-945-3

Several thousand head of marsh cattle are driven or hauled to summer range on woodlands. This permits both the woodland and the marsh to be grazed during the best season. Advantages to both cattle and ranges more than off-set the expense and trouble involved.

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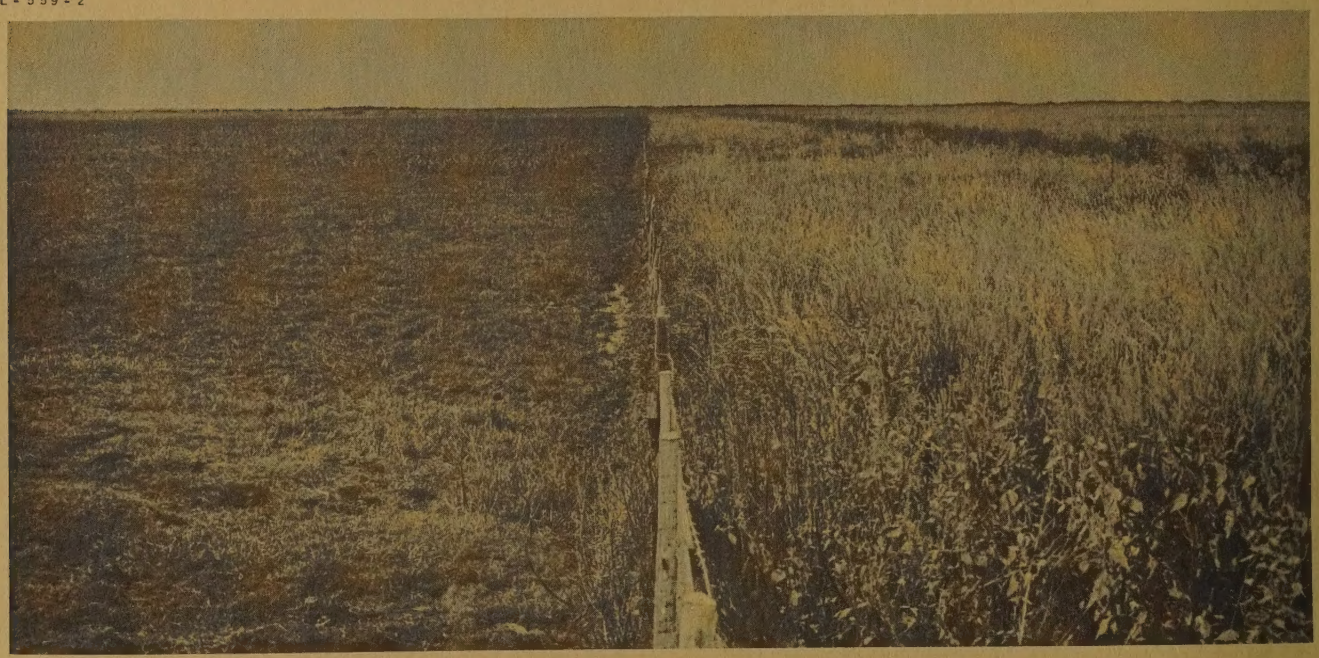
Louisiana's *RANGE RESOURCES*

are an important segment of the State's agriculture

----- what will their management be?

ABUSE or *PROPER USE*

L-559-2



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